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ABSTRACT

Recent reports by government agencies show concern regarding the extent to which American workers lack the workplace skills necessary to meet the challenges of today's workplace. The Work Keys system, a program developed by American College Testing (ACT) to help improve the job skills of the workforce, is described. A pilot project is being conducted with the Department of Human Services (DHS) of a Midwestern state to examine the extent to which Work Keys provides data which can be used to address the human resources needs for three classifications of social workers. The job analysis component of the Work Keys system has been used to study all three jobs and establish skill standards. The assessment component of the system will be used to examine the extent to which a sample of incumbents meets the skill levels set by subject matter experts. Data collected from a variety of sites in the United States are used to demonstrate the types of comparisons that can be made among job profiles and individual assessment data. Finally, a series of recommendations are given regarding how the Work Keys system can be used to address the human resources needs of the three social worker classifications studied in this pilot project. Contains three tables and nine figures. (Author)

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Running head: A Work Keys Pilot Project

A Work Keys Pilot Project: Identification of Foundation Skills for Social Workers

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Abstract

Recent reports by government agencies show concern regarding the extent to which American workers lack the workplace skills necessary to meet the challenges of today's workplace. This paper describes the Work Keys system, a program developed by American College Testing (ACT) to help improve the job skills of the workforce. The paper goes on to describe a pilot project being conducted with the Department of Human Services (DHS) of a midwestern state to examine the extent to which Work Keys provides data which can be used to address the human resources needs for three classifications of social workers. The job analysis component of the Work Keys system has been used to study all three jobs and establish skill standards. The assessment component of the system will be used to examine the extent to which a sample of incumbents meets the skill levels set by subject matter experts. Data collected from a variety of sites in the U.S. are used to demonstrate the types of comparisons that can be made among job profiles and individual assessment data. Finally, a series of recommendations are given regarding how the Work Keys system can be used to address the human resources needs of the three social worker classifications studied in this pilot project.

A Work Keys Pilot Project: Identification of Foundation Skills for Social Workers

Introduction

In the past decade, concern has mounted that American workers, both current and future, lack the workplace skills necessary to meet the challenges of technological advances, organizational restructuring, and global economic competition. Increasingly, jobs require individuals to possess generic employability skills that include problem-solving, communications, and personal skills. Yet nationwide studies, such as *A Nation at Risk* (National Commission on Excellence in Education, 1983), and *America 2000: An Educational Strategy* (Secretary's Commission on Achieving Necessary Skills, 1991), report that many people in today's workforce lack these skills. This is particularly problematic because the majority of the workforce which will be entering the 21st century is already on the job today (Auerbach, 1991). The implication is that for America to remain competitive, it must allocate greater resources to better train those already in the workforce.

This is one concern which prompted American College Testing (ACT) to expand its services and develop the Work Keys system as a means of improving generic workplace skills (i.e., those skills crucial to effective performance in most jobs). Work Keys is a national system designed to identify and improve these workplace skills which serve business, industry and labor, and educational entities. The system is a multifunctional program of four interactive components: assessment, job profiling (job analysis), instructional support, and reporting. After considerable review, ACT, with the assistance of advisory panels comprised of employers, educators, and experts in employment and training requirements, selected twelve critical skills to form the basis of the Work Keys system: reading for information, applied mathematics, listening, writing, teamwork,

applied technology, locating information, observation, speaking, motivation, learning, and managing resources. To date, the Work Keys system is operational with the first eight employability skills cited above. The remaining skill areas will be developed over time.

Fundamental to the Work Keys system is a measurement scale that is used to measure both the generic employability skills required for specific jobs and those same employability skills demonstrated by the individual. This metric provides employers, educators, and individuals with a common language they can use to communicate information about skill qualifications and requirements. For example, employers and potential employees can use this scale to determine whether an individual's skills match the skill requirements of a particular job, while educators can use the metric to determine how to best prepare students for the workplace.

Assessments

The assessment component enables employers and individuals to identify personal skill levels. Work Keys assessments are criterion-referenced, rather than norm-referenced. That is, an examinee's performance on the assessments is compared to an established scale or standard (e.g., the proficiency level of a skill required for successful completion of a training program), rather than against the test performance of others standardized along a normal distribution. Each assessment consists of four or five levels and each successive level is more complex than the previous level.

Assessments have been developed for each of the operational skill areas: Reading for Information, Applied Mathematics, Listening, Writing, Teamwork, Applied Technology, Locating Information (reading and interpreting graphically presented material such as tables, charts, graphs, etc.), and Observation. Several steps are taken to ensure that the Work Keys system satisfies the needs of employers and educators and that the Work Keys assessments are reliable, valid, and fair.

First, ACT staff members develop test specifications which detail the aspects of the skill the assessment is going to measure and how the items will increase in complexity as the level of skill measured increases. A panel of businesspeople, educators, and ACT staff members reviews the specifications and recommends any changes considered valuable. Once the test specifications are finalized, ACT staff and item writers begin developing items.

These items are pretested using approximately 20,000 examinees to permit the evaluation of each test item's psychometric properties. The resulting information is used to create steps or "levels" in the assessment which are far enough apart to be statistically distinguishable, yet close enough together to provide useful information. Item statistics also give clues to possible problems with item content. Items "flagged" in this way are reevaluated by ACT test specialists and, if necessary, content reviewers external to ACT. All items are also subjected to a Differential Item Functioning (DIF) analysis (Dorans & Holland, 1993), a statistical analysis used to test for possible race and gender bias, prior to inclusion in operational forms. In addition to the empirical data collected, qualified reviewers examine each item to ensure that they will not be biased against or be offensive to minority group members; other reviewers examine the items for content accuracy. Finally, ACT staff members construct operational forms of the assessment using the reviewed items.

Job Profiling

The Work Keys job profiling component is a job analysis procedure which identifies the Work Keys skills and the levels of those skills needed to perform a particular job adequately. The process consists of both a task analysis and a skills analysis. The resulting job profile can be used as the basis of the content validity of the Work Keys system and for identifying training needs.

Each job profile is generated from a computer-assisted job analysis procedure. The software developed for this purpose includes a database of selected jobs and tasks from the *Dictionary of Occupational Titles* (U.S. Department of Labor, 1991). The jobs selected for this database have high levels of current employment and high growth potential for future employment. Searching on keywords in the job titles and tasks in the database allows the job profiler to compile an initial list of tasks that could be associated with the job being profiled. The profiler presents this initial task list to a group of workers in the job being profiled (i.e., subject matter experts or SMEs) who add, delete, consolidate, and/or change the description of each task until the tasks accurately depict *their* job as it is performed in *their* company. After examining the modified task list carefully, the SMEs rate the tasks according to Importance (the significance of the task to overall job performance), and Relative Time Spent (the amount of time spent performing this task compared to that spent on other tasks). Based on these ratings, the SMEs determine the tasks that are most critical to their job.

This final task list is then used in the skills analysis phase of job profiling. For each skill, the SMEs are presented with the definition of that skill and are asked to identify the tasks requiring some level of that skill. Following a brief discussion among the SMEs, the profiler distributes a detailed description of one level of the skill to the SMEs. This description includes both a definition of the skill level, as well as two examples of problems or situations at that level. The level definition is derived from the test specifications for that skill's assessment, and the examples presented are previously pretested assessment items or are written to meet the test specifications for that level. Using a prepared rating form, the SMEs then indicate whether their job requires skill of greater than, less than, or about the same level of complexity as the examples. This process of

reviewing levels continues until the SMEs come to a consensus regarding the level of each skill required for the job as a whole. The final product of this process is a document listing the most important tasks an individual in the job must perform and, for each relevant skill area, the skill level required for the job.

When selection and promotion decisions are at stake, this process is repeated by independent groups of SMEs. The comprehensive and systematic analysis of jobs is consistent with the standards for job analysis described in the *Uniform Guidelines on Employee Selection Procedures* (EEOC, 1978) needed to establish the content validity of a test used to screen job applicants. Because job profiling follows the same metric as the assessments, the skills analysis conducted by the SMEs also establishes the appropriate "passing" score (i.e., level of proficiency for the assessments). This eliminates one of the more complex and controversial problems of traditional employment testing: where to set a legally defensible cutscore for selection.

Instructional Support

The Work Keys instructional support component provides trainers, curriculum developers, and others involved in the job-training process with materials that will facilitate their efforts to help learners improve their workplace skills. A series of *Targets for Instruction* designed to aid the development of appropriate curricula and effective instructional strategies for teaching the Work Keys skill areas is central to this component.

The *Target for Instruction* developed for each skill area is intended to get the educator/instructor started in developing courses to provide instruction for generic employability skills. Instructors who will use these Targets know how to teach and, in many cases, are already teaching some aspects of these skill areas, although perhaps not in a focused way. The Targets do

not tell instructors how to teach but, instead, outline the skills and the levels of those skills that are assessed by Work Keys so instructors know what skills have been identified as important by the business community.

Reporting

The Work Keys system reporting component facilitates the distribution of information to individuals, educators, and businesses. This information can help individuals make career choices, educators evaluate curriculum and provide students with career guidance, and businesses plan training programs and screen prospective employees.

Determining Foundation Skill Levels for Social Workers

The above discussion highlights the complete nature of the Work Keys system. It offers not only a job analysis system, but also an assessment component as well as a training component. As a result, there are many possible uses for the Work Keys system in an organizational setting - selection, promotion, and training to name a few. The value of the Work Keys system for providing information for human resources applications is being examined in a pilot project in a midwestern state. The Department of Human Services (DHS) in this state has recognized the need to expand its human resources functions within the social worker job family and is participating in this project to determine the degree to which Work Keys will meet its needs. A decision made early in the project involved whether to include all of the operational Work Keys skills. While all parties wanted as much information as possible about basic skills required to be a social worker, time constraints were also an issue. After some debate, the decision was made to include the following skills: Reading for Information, Locating Information, Applied Mathematics, Listening, Writing, and Teamwork. The Applied Technology skill was omitted due to the low

probability that it would be relevant to the social worker jobs. Observation was not included because the materials related to this skill were not yet available when this project started.

The project consists of (1) conducting job profiling for each of the social worker classifications to establish skill standards, (2) administering assessments to a sample of social workers from each classification, and (3) examining the results of the first two steps to determine recommendations. Each step is further discussed below.

Job Profiling Social Workers Jobs

Three grades of social workers are participating in the project: Social Worker I (SWI), Social Worker II (SWII), and Social Worker III (SWIII). The SWIs and SWIIs perform many of the same tasks and form the backbone of the social worker hierarchy. These jobs differ primarily by time in grade and by the size of the caseload carried. One hundred twenty-six individuals are employed as SWIs and 1,445 people are employed as SWIIs. The SWIIIs form a significantly smaller group (n=43). They are responsible for removing adults from situations of abuse and neglect.

Due to the number of individuals employed as social workers in the state, two separate and independent job profiling sessions were held for each classification. Although it could be argued that one session may have sufficed for SWIIIs, two were held to keep the manner in which this project was implemented consistent across the classifications. An effort was made to recruit groups of SMEs which were representative of the gender and racial makeup of the job incumbents. Ideally, six to eight SMEs would take part in each job profiling session. Because the SMEs for this particular project were coming from around the state to meet in a central location, it was

decided to invite ten SMEs to each session, with the expectation that some individuals would not be able to participate due to last minute obligations.

The six job profiling sessions for this project were conducted during a two-week period in which the first session for each job was conducted the first week, while the second sessions were held the additional week. Approximately seven hours were needed to complete the task analysis and skills analysis phases of each job profiling session. This effort produced the job profiles and lists of critical tasks which are discussed later in this paper. The authorized job profilers who conducted the sessions found that the majority of participants took the profiling experience seriously and appreciated the opportunity to talk about their jobs. In addition, a high degree of agreement was found within and among the groups, excluding one group that appears to be an outlier. This group is discussed below.

Table 1 (see page 20) shows the skills profiles generated by each group of SMEs for each classification. The most obvious discrepancy is between Groups 1 and 2 for the SWI job. In this case, Group 2 appears to be an outlier group. The first round of profiling (i.e., Group 1 for each classification) and discussions with individuals in DHS, indicated that the SWI and SWII jobs are very similar. In fact, the profiles generated by the first groups of SMEs for the two jobs differed only in the level of Teamwork skill required. The profile generated by the second group of SWIIs is also very similar to the ones developed by the first groups of SWIs and SWIIs. The discrepancies of the SWI groups may be due to the composition of the second group: only five individuals were able to participate in the second profiling session for the SWI job. The small size of this group made it easier for a particular participant to dominant the discussion. This individual consistently urged the group to select a higher skill level for each skill than the group might have

selected otherwise. Because of these mitigating factors, it was decided that information from Group 2 concerning the SWI job would not be included in the final analysis, meaning that the profile determined by Group 1 would stand.

Because the profiles from the two groups of SWIIIs did not differ, only one discrepancy remained. The profiles from the two groups of SWIIs differed in the level of the Reading for Information skill needed. The usual procedure to resolve such a skill level discrepancy is to convene representatives from each group for another meeting to reconcile this difference. However, because the social workers were a sample from around the state, it was not feasible to reconvene for a second meeting. Rather, meetings were held via conference calls. Although it was necessary only to reconcile the skill level discrepancy for the SWII classification, conference calls were held for each job classification to collect more information regarding the importance of each skill area to each job.

While an effort was made to maintain conference call groups which were representative of the job incumbents in each classification, availability also was a factor here. Prior to the conference calls, participants were mailed packets containing a cover letter explaining the purpose of the conference call, along with the skill definitions and level definitions for each skill area to refresh their memories. It was necessary to send this descriptive information for each skill area to facilitate the discussion with the SMEs regarding the importance of the skill areas to the jobs.

Individuals participating in the SWII conference call were asked to reconcile the difference in the levels of the Reading for Information skill determined necessary by the two groups of SWIIs during the job profiling sessions. This involved referring to the task lists generated by the groups, discussing the nature of the material read on the job, as well as determining the amount of support

social workers receive when required to read complex material such as legal documents. The final decision on this skill and the final profiles for each Social Worker classification are shown in Table 2 (see page 21).

Table 2 shows that the skill levels for the Social Worker jobs are generally quite high. This is consistent with the fact that Social Worker is a professional occupation needing a high level of education and that Social Workers are often faced with demanding circumstances. The three grades of Social Workers are quite similar in the skill levels needed. As mentioned earlier, SWI and SWII are separated only by the level of the Teamwork skill needed, where SWII is one level higher than SWI. Somewhat more variation is found in the skill levels for SWIIIs. They require one level higher in the Reading and Teamwork skills than do SWIIs. The higher reading skill level may be due to the frequent dealings with, and even writing of, legal documents. Several SWIIIs commented that they frequently must act as attorneys when they appear in court. The SWIIIs also commented that because many of their actions are dictated by state laws, they are frequently put into situations where they are the change agents and the relationships with others become strained, requiring a high level of the Teamwork skill.

Relative Importance of Skills. To establish the relative importance of the skills, the conference call participants reviewed the six Work Keys skills used in this project with job profilers who facilitated the conference call. After answering any questions regarding the skills, the conference call participants were asked to make a series of paired comparisons among the skills. Each skill was compared to the other skills (one at a time) to determine the most important skill. Then the remaining skills were compared, again one pair at a time, to determine the second most important skill. This process continued until all the skills had been ranked. For example,

participants were asked to compare the Reading for Information and Locating Information skills to determine which is the most important to their job. The most important skill from this pair was then compared to another skill and so on until all the skills had been ranked. This paired comparison procedure was used to reduce the cognitive load on the participants. Rather than considering several items simultaneously, it is generally considered easier to compare two items at a time.

The conference call participants were then instructed to assign ratings to the skills to indicate the relative importance of the skills to each job. A rating scale of 1 to 9 was used, with 9 representing the highest level of importance. All the groups agreed that the Listening skill is the most important skill to their job, while the Applied Mathematics skill is the least important. There was some variation in the importance of the remaining skills to the three social worker classifications and this is reflected in Table 3 (see page 21).

Assessment Administration

The second phase of this project involves administering the assessments for the six skill areas used in this project to a sample of 300 currently employed social workers within the state. This sample will be composed of individuals from all three social worker classifications. This phase of the project is in the planning stages and the assessments have not been administered at this time. It is anticipated that this will occur within the next two months.

Once available, the assessment data will provide quite a bit of information. First, the data will provide information on the current levels of foundation skills possessed by incumbent social workers. It will also provide individual skill profiles (obtained from assessment results) which will be compared to the job profiles to determine the percentage of incumbents whose individual skills

profiles match or do not match the job profile for their job. A skills gap may be found for individuals recently hired or perhaps for individuals who have been in the job for a long time but who have not kept up with recent advances. Whatever the cause of a skills gap, the identification of the gap allows one to specify areas where additional training would be beneficial. This type of comparison is illustrated in Figures 1-3 (see pages 22-24). Figure 1 shows the final job profile for the SWI classification, Figure 2 shows the individual skills profile for a hypothetical examinee, and Figure 3 shows an overlay of the two previous charts. Figure 3 indicates that the examinee requires additional training in reading and listening to be fully qualified for the SWI job. This comparison between a person's individual skills profile and job profile is also the type of comparison that would be made when using the Work Keys system for hiring purposes. The goal would be to see whose skills levels meets those of the job profile and, thus, who would move on to the next phase of the hiring process.

The data generated by the Work Keys system can also be used to examine the preparedness of the workforce in a general area. For example, if DHS was interested in expanding its staff of social workers, the agency would probably be interested in determining the percentage of qualified individuals in the state. Although this project does not include assessing a sample of the state's general population to determine the percentage of qualified individuals, the Work Keys assessments have been administered to approximately 200,000 people around the country and, the data from this sample can be used to illustrate the comparisons that would be made. This sample of 200,000 examinees, which is not intended to represent the nation as a whole, comprises primarily, but not solely, high school juniors and seniors. Although most examinees in the sample have taken some vocational education courses, general and college-track students are also represented, as is a mix

of racial/ethnic groups. Most examinees came from the Midwest or South. Not all examinees took each of the Work Keys assessments; therefore, the number of examinees for each skill area varies.

Figures 4-9 (see pages 25-30) show the percentage of examinees scoring at each level of each skill area. A quick comparison of Table 2 with Figure 4 shows that all three social worker jobs require a Level 5 of Listening, but so few examinees attained this high level of Listening on the assessment that the percentage scoring at this level is given as "0%." All three jobs also require a Level 4 of the Writing skill, and Figure 5 shows that 11% of the examinees scored at this level or above. The picture is slightly better for the Locating Information skill, with three jobs requiring a Level 5 of this skill, 18% of the examinees scored at this level or higher (see Chart 6). The situation improves even more for the Applied Mathematics skill: all three jobs require Level 4 of the math skill, and Chart 7 shows that 66% of examinees scored at this level or above.

There is more variation among both the Reading for Information and Teamwork levels required for the three social worker jobs. Both SWI and SWII require a Level 6 of the reading skill, while Chart 8 shows that 16% of the examinees scored at this level or above, and only 2% scored at Level 7, which is the level required for the SWIII job classification. The Teamwork skill shows a progression up the levels for the social worker classifications: SWI requires a Level 4, while 64% of the examinees met or exceeded this level; SWII requires a Level 5, while 33% of the examinees scored at this level or above; SWIII needs the highest level of the Teamwork skill (Level 6), which was attained by 3% of the examinees (see Chart 9).

These comparisons can also be made on a more finite level. If Work Keys assessment data are available for a pool of individuals in a given geographical area, the Work Keys database can provide to employers, with examinee permission, lists of candidates having the desired (and job

appropriate) skills profiles. This is already possible in the states which are administering the Work Keys assessments in their secondary school systems.

Regardless of the manner in which the comparisons are made, these data indicate that as the skill level needed for a job increases, the number of qualified individuals decreases. This would indicate to the organization in question that it would be difficult to recruit applicants with all the necessary skills and that it may be beneficial to provide training to new hires. Given the data at this point, training in the Listening skill would seem necessary for all new hires, as well as training in both the Reading for Information and Teamwork skills for the SWIII job. It should be remembered, however, that the sample which generated this data is primarily composed of high school students, while the social worker jobs require a college education. Consequently, the argument can be made that this is not the best sample to use for comparison purposes. However, the comparison does illustrate one use of the Work Keys system.

Recommendations

While all the data connected to this study are not available, several uses of the Work Keys system have been discussed. First, the information generated by the Work Keys system can be used for hiring purposes. This requires comparing an individual's skills profile to a job profile to determine whether the person is qualified for the job. In the event that resources are limited and DHS does not want to assess applicants on all six skill areas, the skill importance information can be used to make decisions about which skill areas would make sense to assess. Based on the skill importance information reported in this paper, DHS may decide to only assess the skill areas of Listening, Reading for Information, Writing, and Teamwork if resources are limited.

This same process (comparing job profiles and assessment data) can be used to identify skill gaps. The resulting information could be used in a career development model. Individuals could be alerted to areas in which they need to improve to perform their current jobs. With the job profiles for the higher level jobs, individuals would know what skill levels they need to achieve to increase their likelihood of being promoted. DHS may want to provide training on the foundation skills to its employees to give everyone an equal opportunity to improve their skills.

The process of developing a training program is made easier by using the list of critical tasks generated during the job profiling process. During the process of skills analysis, the SMEs identify the tasks which use the particular skill being discussed. This provides an easy source of information about how each skill is used on the job and about the specific tasks that can be incorporated into the training program curriculum. The list of critical tasks could be used also as a basis for developing performance appraisal forms, as well as for writing job descriptions. Additional options may become apparent when all the data are available for examination.

Summary

This paper has discussed the Work Keys system and a pilot project now underway to study the ways in which Work Keys can address the human resources needs for the social worker job classifications of a midwestern state's Department of Human Services. Job profiling of each job classification resulted in a skill profile for each job that provides a standard against which assessment results can be compared. Data from the administration of the Work Keys assessments to a sample of social workers will provide decisionmakers with the opportunity to compare the skill levels of current employees to the skill levels required for the jobs as determined by SMEs. This

comparison may well point to skill gaps for incumbents, which training in the basic skills will alleviate.

Although assessment results from incumbents are not yet available, a comparison of the profiles to assessment data generated primarily from high school students from around the country indicates the difficulty DHS would have in recruiting qualified individuals for social worker jobs. Although these jobs require a college education, the small percentage of qualified individuals is illuminating. These results are consistent with the reports citing concern that American workers lack the necessary skills to compete globally. The results also point to the need for training in basic skills. The implication for employers is that unless systematic efforts are made to improve these skills, it will become increasingly difficult and costly to find qualified individuals to fill job vacancies.

In sum, the Work Keys system supports a variety of uses. The direct comparison between job profiles and individual skills profiles allows one to readily discern whether an individual is qualified for a particular job or needs additional training to qualify for that job. This information can also be used by job applicants to determine what steps they need to take to qualify for the jobs they want. This ease of use positions Work Keys as a useful, practical tool for selection and training purposes. In addition, the Work Keys assessment design and job profiling process facilitates the establishment of content validity.

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Table 1

Results of the Job Profiling Sessions for Each Social Worker Classification

Social Worker I

	Number of SMEs	Reading for Information (3-7)	Locating Information (3-6)	Teamwork (3-6)	Listening (1-5)	Writing (1-5)	Applied Mathematics (3-7)
Group 1	9	6	5	4	5	4	4
Group 2	5	7	6	6	5	5	5

Social Worker II

	Number of SMEs	Reading for Information (3-7)	Locating Information (3-6)	Teamwork (3-6)	Listening (1-5)	Writing (1-5)	Applied Mathematics (3-7)
Group 1	6	6	5	5	5	4	4
Group 2	7	7	5	5	5	4	4

Social Worker III

	Number of SMEs	Reading for Information (3-7)	Locating Information (3-6)	Teamwork (3-6)	Listening (1-5)	Writing (1-5)	Applied Mathematics (3-7)
Group 1	8	7	5	6	5	4	4
Group 2	6	7	5	6	5	4	4

Note. The numbers in parentheses under each skill name reflect the range of skill levels for that particular skill.

Table 2

Final Job Profiles for Each Social Worker Classification

	Reading for Information (3-7)	Locating Information (3-6)	Teamwork (3-6)	Listening (1-5)	Writing (1-5)	Applied Mathematics (3-7)
Social Worker I	6	5	4	5	4	4
Social Worker II	6	5	5	5	4	4
Social Worker III	7	5	6	5	4	4

Note. The numbers in parentheses under each skill name reflect the range of skill levels for that particular skill.

Table 3

Relative Importance of Skills

	Reading for Information Rank/Rating	Locating Information Rank/Rating	Teamwork Rank/Rating	Listening Rank/Rating	Writing Rank/Rating	Applied Mathematics Rank/Rating
Social Worker I	2/8.8	4/6.0	5/5.0	1/9.0	3/7.3	6/4.0
Social Worker II	2/8.5	5/6.0	3/8.0	1/8.8	4/7.5	6/5.0
Social Worker III	4/7.0	5/5.3	3/7.5	1/9.0	2/8.5	6/4.0

Note. Rankings ranged from 1 to 6. Ratings ranged from 1 to 9 with 9 representing the highest level of importance.

FINAL JOB PROFILE FOR SOCIAL WORKER I

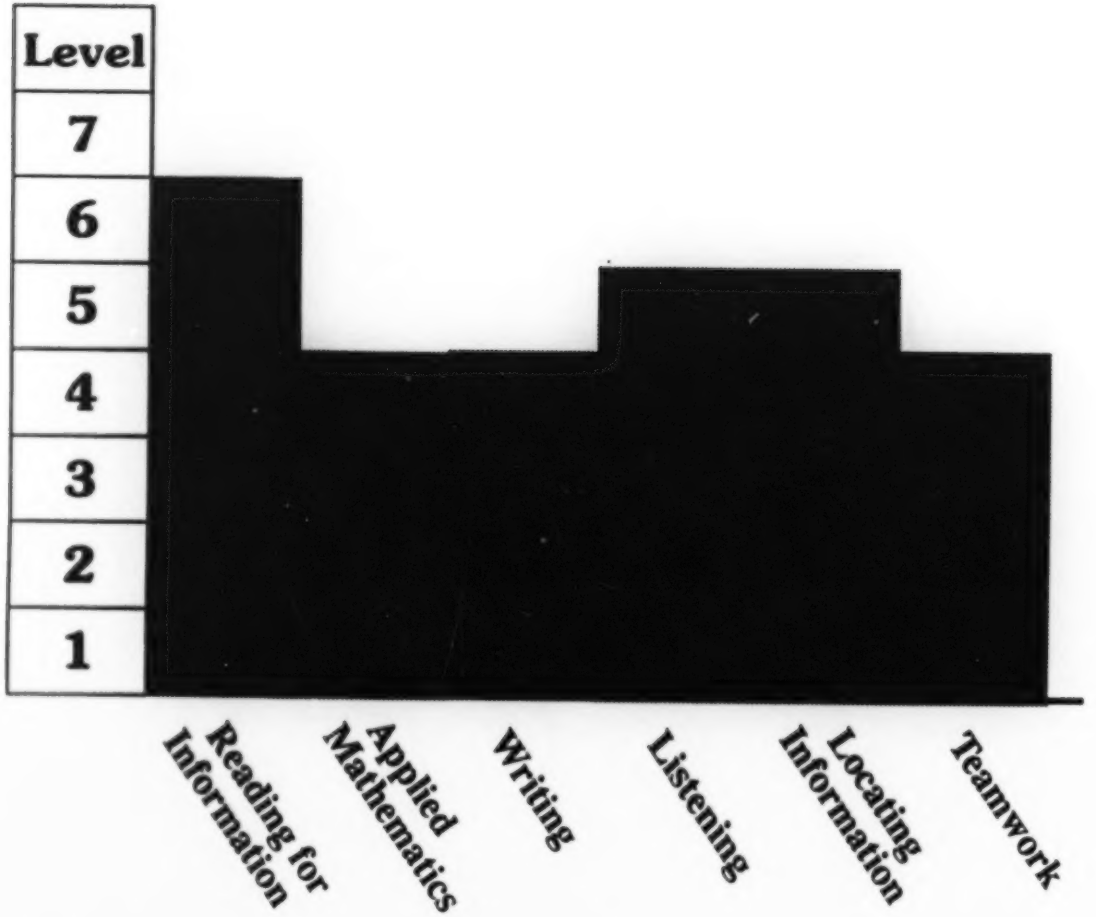

Figure 1

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HYPOTHETICAL SKILLS PROFILE FOR CHRIS JOHNSTON

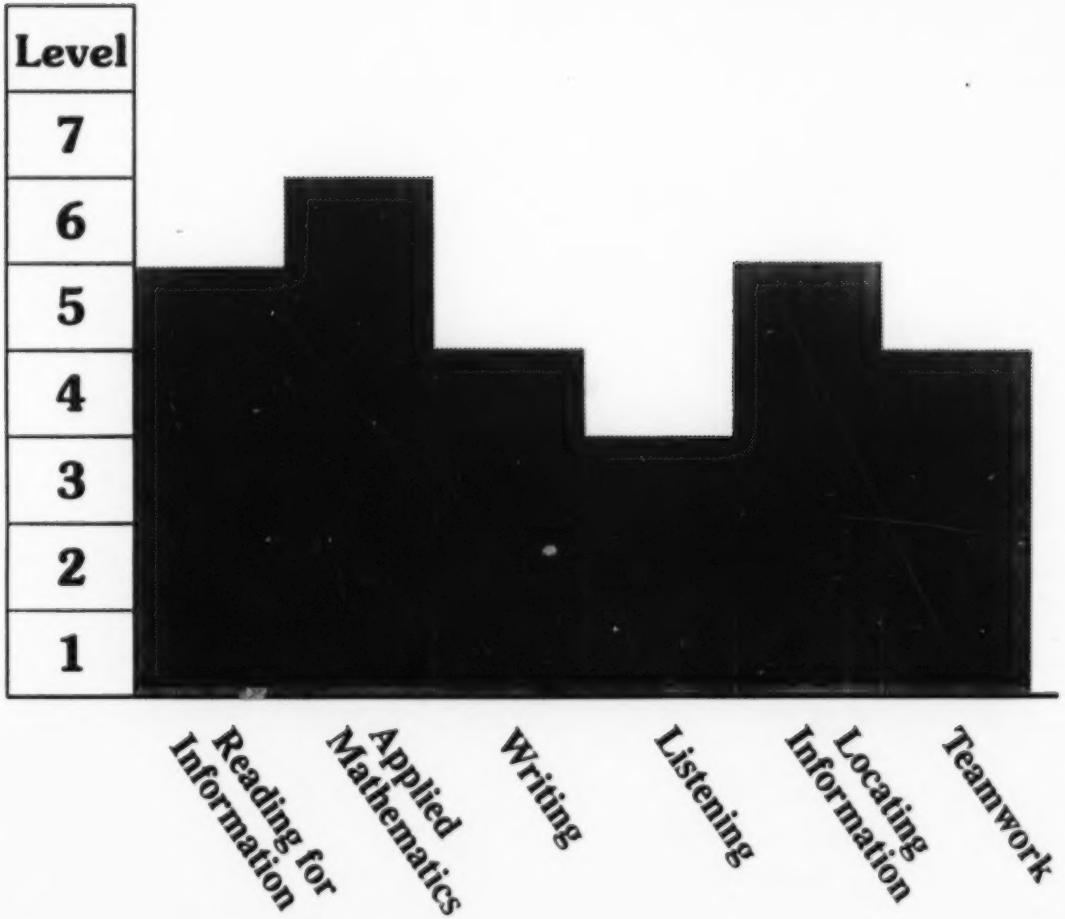

Figure 2

HYPOTHETICAL SKILLS MATCH FOR CHRIS JOHNSTON AND SOCIAL WORKER I

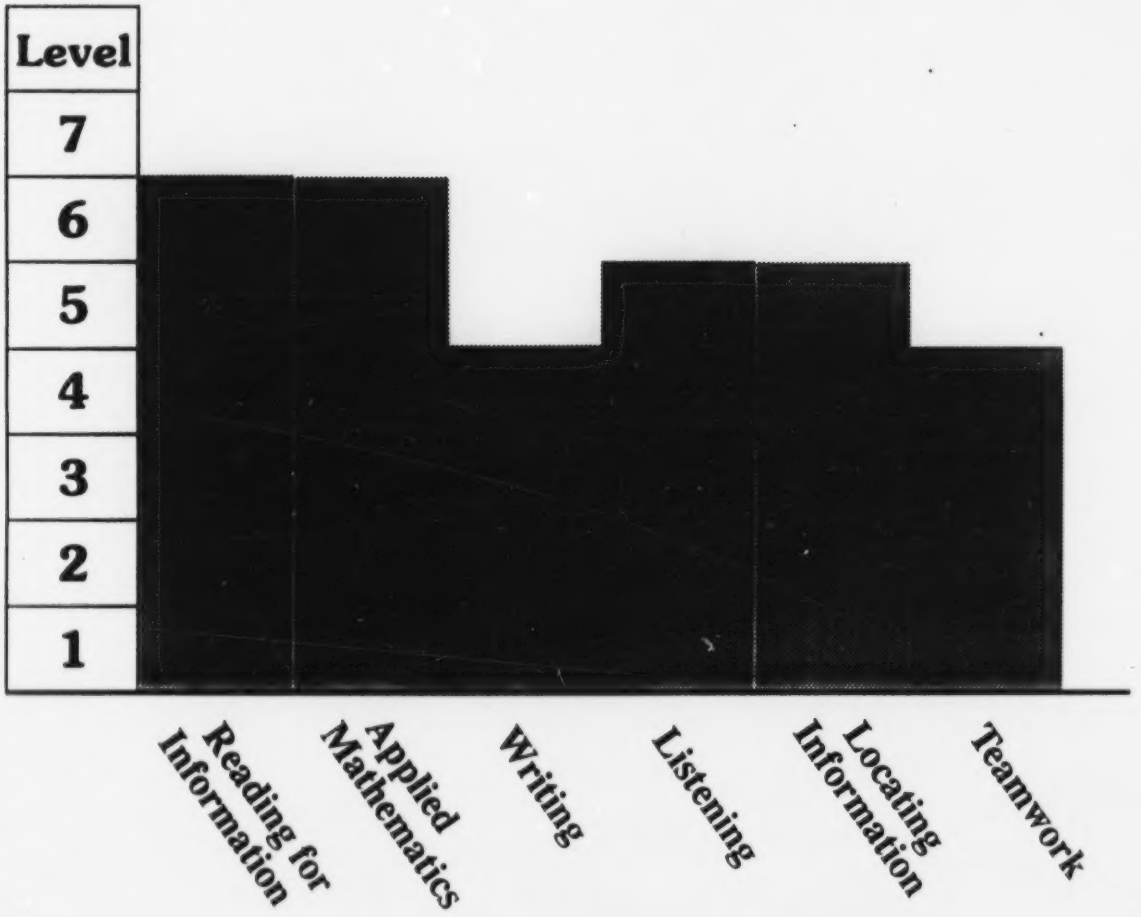

Figure 3. This figure shows that the individual requires additional training in the Reading for Information and Listening skills to be fully qualified for the Social Worker I Job.

Listening

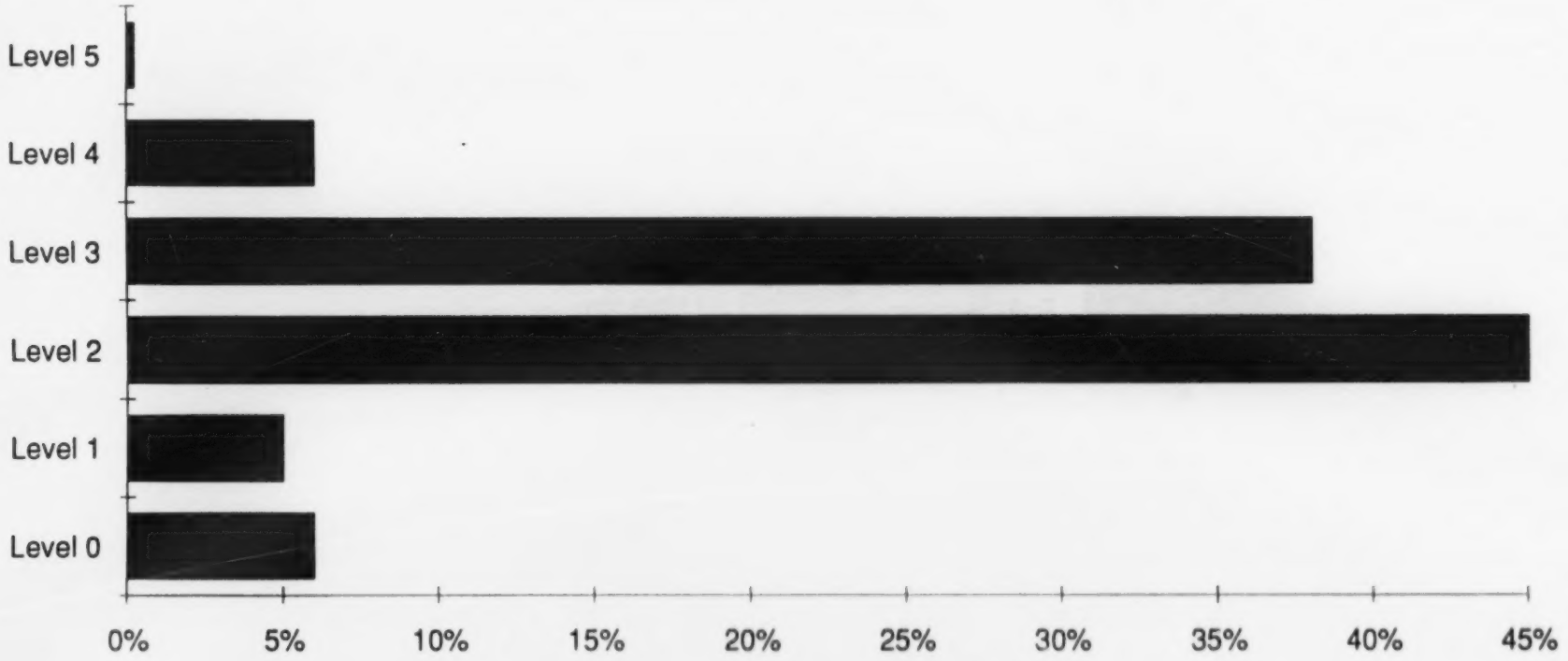

Figure 4. Percentage of examinees scoring at each level of the *Listening* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.

Writing

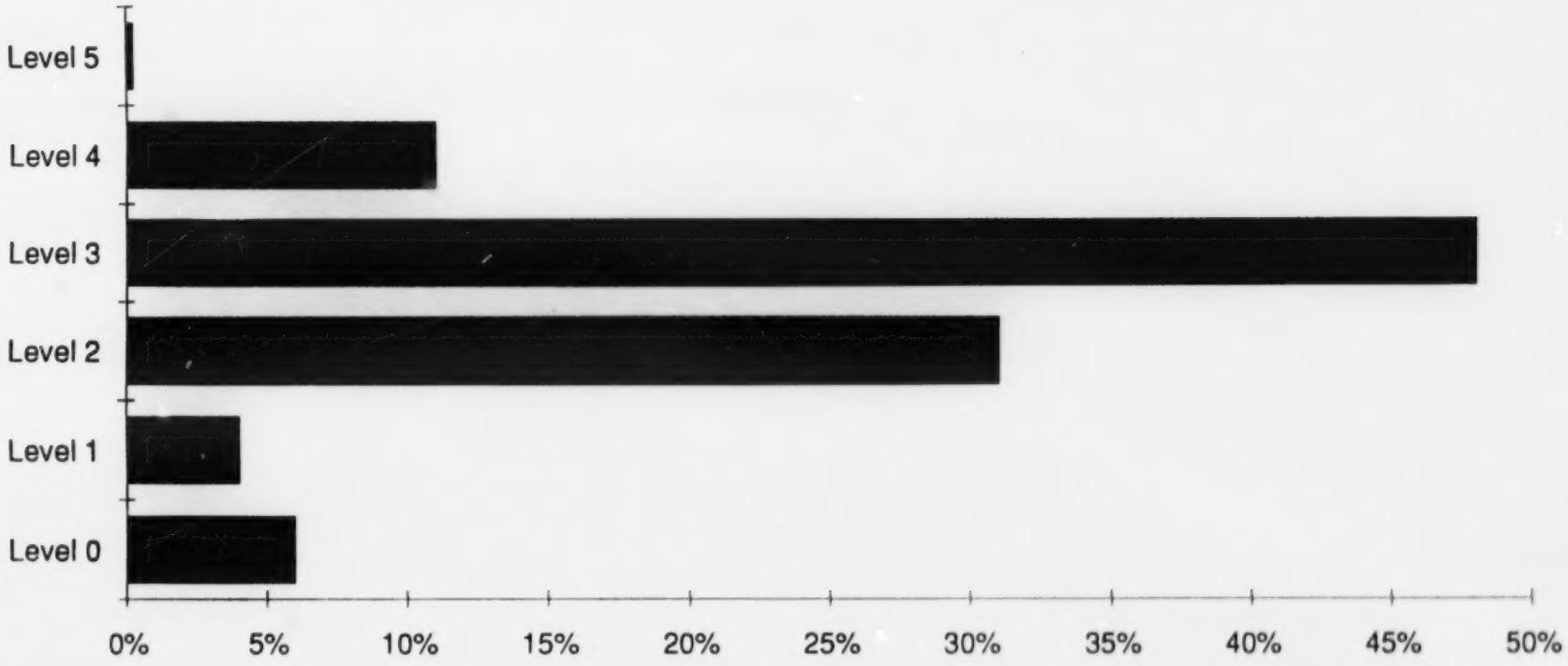

Figure 5. Percentage of examinees scoring at each level of the *Writing* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.

Locating Information

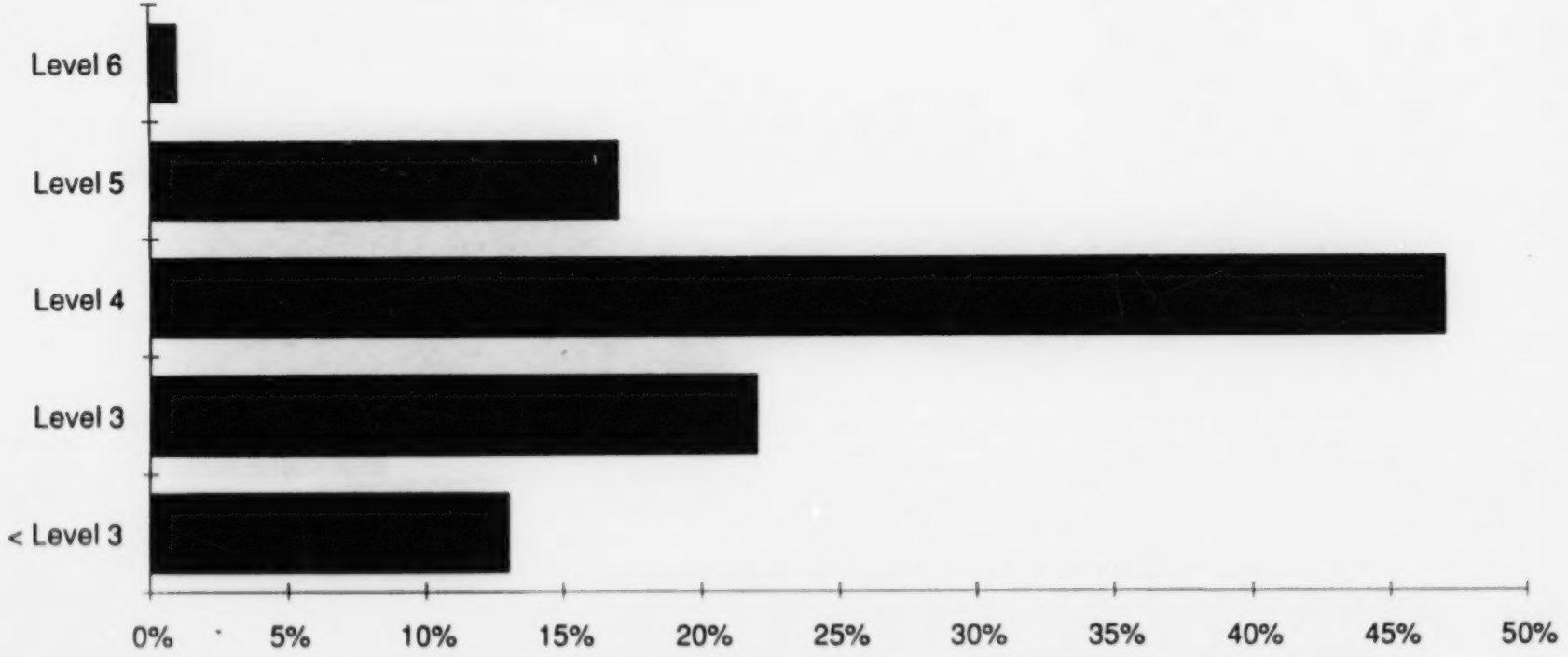

Figure 6. Percentage of examinees scoring at each level of the *Locating Information* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.

Applied Mathematics

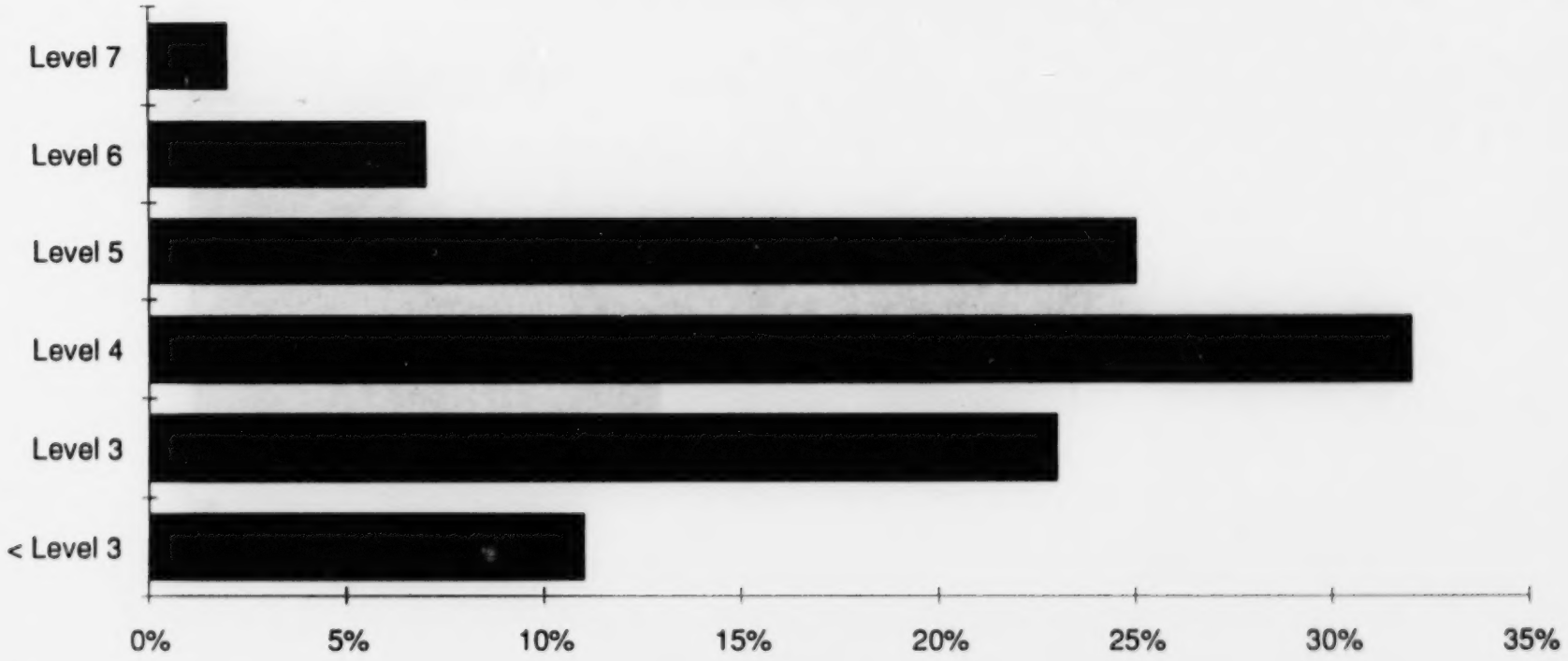

Figure 7. Percentage of examinees scoring at each level of the *Applied Mathematics* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.

Reading for Information

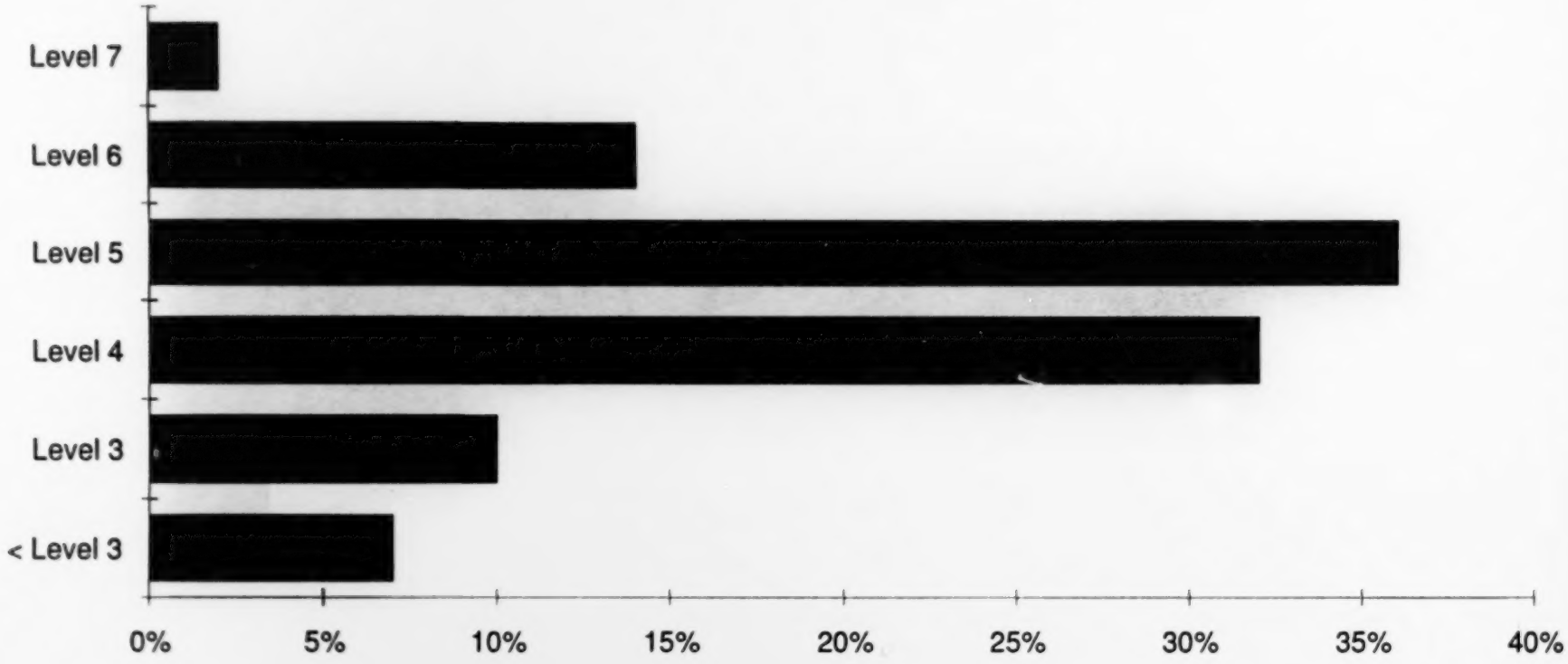

Figure 8. Percentage of examinees scoring at each level of the *Reading for Information* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.

Teamwork

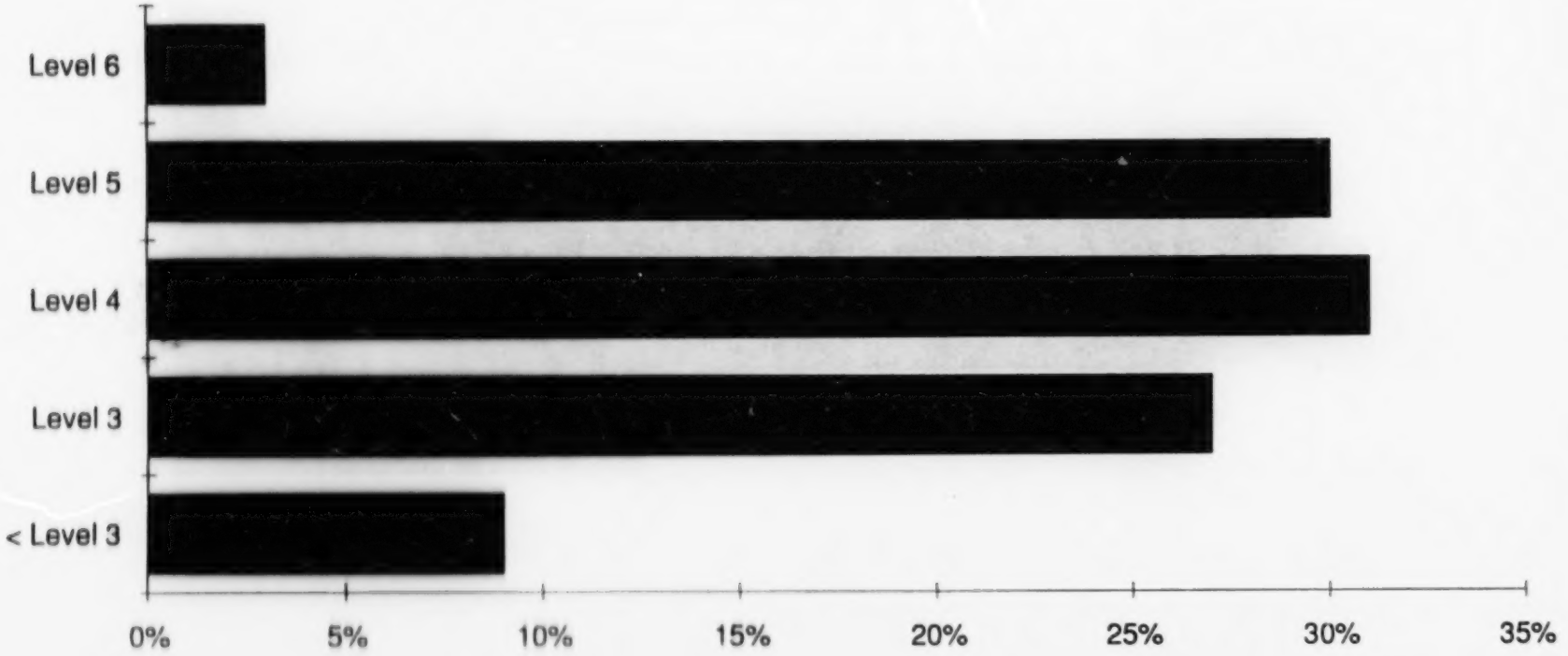

Figure 9. Percentage of examinees scoring at each level of the *Teamwork* assessment.

Note: Interpret data with great caution.
Examinees are not nationally representative.